

DC Surge Protection Solutions for PV Applications

Strikesorb® 35 Module Series

Strikesorb 35-D-HV-M • Strikesorb 35-E-HV-M
 Strikesorb 35-F-HV-M • Strikesorb 35-G-HV-M

Raycap's innovative Strikesorb® 35 surge protective device is designed specifically for DC photovoltaic applications operating at voltage up to 1500 V and is compliant with the EN 50539-11 and UL 1449 4th edition standards. Offering maintenance-free operation, it mitigates the risk of damage due to lightning and provides high levels of availability and reliability to photovoltaic installations.

Strikesorb®

Strikesorb incorporates a single, heavy duty, distribution grade Metal Oxide Varistor (MOV) disk, assembled under pressure in an environmentally sealed aluminum casing. This unique design provides very low internal contact resistance, excellent thermal management and uniform distribution of the surge current over the total area of the protection element, thus resulting in an extremely high energy handling capability combined with very low let-through voltage. Strikesorb's patented design minimizes the effects of ageing and completely eliminates the risk of catastrophic failure, explosion or fire, which are common in conventional surge protective devices relying on the use of internal fuses and thermal disconnects.

Strikesorb has been designed to withstand repeated surges providing a cost-effective and maintenance-free operation in harsh environments.

Features

- Strikesorb 35 Surge Protective Device (SPD) is specifically designed for photovoltaic installations and it can be used in DC systems of operating voltage up to 1500 V
- Strikesorb 35 is a Type 1 SPD, per the EN 50539-11 standard for surge protective devices, and a Type 2 Component Assembly SPD per UL 1449 4th edition.
- Its unique patented design provides uninterrupted protection from damage caused by lightning. Strikesorb 35 is able to withstand direct lightning currents up to 12.5kA (10/350 µs)
- Provides very low let-through voltage, unique for a Type 1 (per EN) product, as it does not employ spark gaps or other switching elements
- It is suitable for installation in photovoltaic inverters and combiner boxes
- Maintenance-free

SPECIFICATIONS

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Electrical

Strikesorb 35 Metric Models*	Strikesorb 35-D-HV-M	Strikesorb 35-E-HV-M	Strikesorb 35-F-HV-M	Strikesorb 35-G-HV-M
Surge Protective Device (SPD) per UL 1449 4 th Edition	N/A	Type 2 component assembly	Type 2 component assembly	Type 2 component assembly
Surge Protective Device (SPD) Type per EN 50539-11	Type 1	Type 1	Type 1	Type 1
Maximum Continuous Operating DC Voltage [U _{cpv}]	650V	800V	1100V	1500V
Response Time [t _x]	<1 ns	<1 ns	<1 ns	<1 ns
Nominal Discharge Current [I _n] per UL 1449 4 th Edition	N/A	20kA 8/20 μs	20kA 8/20 μs	20kA 8/20 μs
Impulse Discharge Current [I _{imp}] per EN 50539-11	12.5 kA 10/350 μs	12.5 kA 10/350 μs	12.5 kA 10/350 μs	12.5 kA 10/350 μs
Voltage Protection Rating (VPR) per UL 1449 4 th Edition	N/A	2000V	2500V	4000V
Voltage Protection Level [U _p] per EN 50539-11	1800V	2300V	2800V	4400V

Mechanical

Environmental Ingress Protection (IP) Rating	IP65	IP65	IP65	IP65
Operating Temperature (°C)	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
Dimensions	Diameter	3.11" [79 mm]	3.11" [79 mm]	3.11" [79 mm]
	Height	3.43" [87 mm]	3.43" [87 mm]	3.43" [87 mm]
Weight	2.12 lbs [964 g]	2.14 lbs [972 g]	2.16 lbs [980 g]	2.27 lbs [1030 g]

Standards Compliance & Certifications

Standards	UL 1449 4 th Edition, EN 50539-11
Certifications	UL, VDE, CE

*Strikesorb Metric Model Thread: M12



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